

REMARKS

Applicant thanks the Examiner for recognizing that claims 4 and 5 include allowable subject matter.

The claims have been amended to remove the unnecessary phrase "the step(s) of" that appears in some of the claims.

Claim 18 was rejected under 35 U.S.C. § 112, par. 2, as indefinite because of the phrase "coin store type." That claim has been amended to recite that the one or more coin containers are selected from among coin containers of a plurality of types "for storing respective different coin denominations." An example is discussed at pages 14-15 of the specification:

It has also been found that the reference waveform 100 is characteristic of the coin tube. By storing a number of reference waveforms, the microprocessor 82 can distinguish between different coin tubes. This is particularly useful when, as in the embodiment of Figure 1, the coin validator is configured so that different coin tubes may be attached to the validator to accommodate different combinations of denominations or different currencies.

* * *

In a further embodiment, the coin tubes form a set and coin tubes are changed by substituting one set for another. A particular set may then be recognized by following the procedure outlines above for each tube of the set.

In view of that clarifying amendment, applicant respectfully requests withdrawal of the rejection of claim 18 under section 112, par. 2.

The claims were rejected over the following references:

(1) Claims 1-3, 6-15, 18 and 19 were rejected as unpatentable over U.S. Patent No. 5,821,424 (Rodriguez).

(2) Claim 16 was rejected as unpatentable over the Rodriguez patent in view of U.S. Patent No. 5,505,090 (Webster).

(3) Claim 20 was rejected as unpatentable over the Rodriguez patent in view of U.S. Patent No. 4,596,144 (Panton et al.).

Applicant respectfully requests reconsideration.

Claim 1, for example, recites a method of determining the number of coins in a store. The method includes generating an acoustic pulse and generating a first waveform based on reflections of the acoustic pulse by the store. The first waveform is compared to a second waveform, and the number of coins in the store is calculated on the basis of the comparison.

Thus, according to claim 1, the first waveform is based on reflections of the acoustic pulse. One purpose of the invention is to avoid problems caused by extraneous reflections (*see, e.g.,* page 1, lines 17 to page 2, line 4), which is achieved by comparing the first waveform with a second (reference) waveform.

The Rodriguez patent discloses generating sound waves to cause a container to vibrate. A laser beam is reflected from the vibrating container and then analyzed to detect a Doppler shift caused by the vibrations. This kind of arrangement, requiring a laser vibrometer and containers which have appropriate structures and mountings for exhibiting correct vibration characteristics, would be completely impractical in a coin acceptor.

Moreover, the arrangement of the Rodriguez patent completely disregards acoustic pulse reflections; instead, the arrangement uses reflections from the optical laser beam:

The system first includes sound generating means for producing sound waves. As discussed below, the sound generating means is used to generate and deliver sound waves to the test container which causes the container to vibrate.

* * *

Next, vibration sensing means is provided which is used to detect container vibration during the application of sound waves to the container. As discussed below, the fill characteristics (e.g. a fill profile or "signature") of the test container may be obtained by determining the vibration characteristics of the container which are then compared to standardized data for a reference (control) container having known fill characteristics. To accomplish this goal, the vibration sensing means includes laser light delivery means for applying a reference beam of laser light to the container during the application of sound waves to the container by the sound generating means. The reference beam comes in contact with the container and is thereafter reflected off of the container in order to generate a reflected beam of laser light. The reflected beam experiences a Doppler shift in frequency compared with the frequency of the reference beam, with the Doppler shift being caused by vibration of the container.

The vibration sensing means further includes frequency shift detector means for measuring the Doppler shift associated with the reflected beam of laser light so that a comparison with the standardized data from the reference container can be made.

(Col. 3, lines 15-50) (Emphasis added) Therefore, the Rodriguez patent does not disclose or suggest generating a first waveform "based on reflections of the [acoustic] pulse by the store."

Furthermore, Rodriguez certainly does not suggest comparison of a waveform based on an acoustic reflection with a reference waveform.

Not do the Webster and Panton et al. patents disclose or suggest the claimed subject matter, alone or in combination with the Rodriguez patent.

Therefore, applicant respectfully requests reconsideration and withdrawal of the rejections of claim 1 and its dependent claims.

Independent claim 14 also recites “detecting *acoustic* pulses *reflected* by the coin store.” For reasons similar to those discussed in connection with claim 1, the subject matter of claim 14 and its dependent claims also is not disclosed or suggested by the cited references.

Independent claim 18 recites a coin handling apparatus that includes a coin store having at least one coin container selected from among coin containers of a plurality of types for storing respective different coin denominations. The apparatus also includes means for “identifying” a coin store type.

There is absolutely no disclosure or suggestion in the cited references of identifying the type of coin store.

For example, the Rodriguez patent discloses comparing the reflected optical wave to standardized data for a reference (control) container having known fill characteristics (col. 3, lines 31-36). Thus, the Rodriguez patent relies on using a container with known characteristics. The technique of the Rodriguez patent is not used to determine the type of container; instead, it is used to determine the “fill profile” of the container (*i.e.*, the extent to which the container is filled).

In view of the foregoing remarks, applicant respectfully requests reconsideration and withdrawal of the rejections of claim 18 and its dependent claims.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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Respectfully submitted,

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